

FISHERIES DIVISION

MICHIGAN DEPARTMENT OF
NATURAL RESOURCES

Lake Erie

Management Unit



YEAR 2015

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Southeast Michigan DNR Fisheries Newsletter

Hello anglers, here is the annual newsletter covering major field activities of the Lake Erie Management Unit (LEMU) in 2015. This unit covers all of the waters that lie within watersheds draining into the St. Clair River, Lake St. Clair, Detroit River, and Lake Erie. LEMU staff work out of the Waterford Fish Station located at 7806 Gale Road, Waterford, Michigan 48327-1058 which is in the Pontiac Lake Recreation Area, as well as the Metro Detroit Customer Service Center in Detroit.

Behind the Scenes of Fish Management

Fish Ageing

From January through March, fisheries technicians processed 2,259 scale and spine samples to determine the age of the fish. The age of a fish can be determined by magnifying either its scales or by looking at a cross-section of a fin spine. Both have rings which can be counted similar to a tree.



Fish stocking

In addition to stocking walleye from the rearing ponds, rainbow trout, brown trout, steelhead, splake, channel catfish, and Great Lakes muskellunge were stocked from state hatcheries. See last page for a table listing the Lake Erie Management Unit 2015 stocking summary.

Fish Rearing

Walleye were again raised in LEMU. Walleye eggs were obtained from the Muskegon River and the fertilized eggs were transferred to the Wolf Lake State Fish Hatchery to incubate. After hatching, the five day old fry were put into two grow-out ponds at the Drayton Plains Nature Center in Waterford, two ponds on the Selfridge Air National Guard base, and one at Camp Dearborn in Milford. We harvested 527,684 spring fingerlings and 1,399 fall fingerlings which were stocked into area lakes.

Belle Isle, Wayne County

Did you know...

that for the Summer months (June thru August) of 2015 there were 1,668,633 visitors to Belle Isle?

Belle Isle and DNR Operation Service Center Aquariums

To help with education and outreach efforts we supplied the Belle Isle and Outdoor Adventure Center aquariums with native fish species. The majority of the fish were bluegill but also included were pumpkinseeds, rock bass, and walleye.

Channel Catfish stocking into Lake Muskoday

A total of 350 fingerling channel catfish were stocked into Lake Muskoday this spring to provide shore angling opportunities. A total of 22 adult channel catfish were also transferred from Lake St. Clair and placed into the lake for anglers to enjoy.



Belle Isle Model Boat basin mapping/stocking

During last winter, we went out on the ice and mapped the model boat basin. It turns out the pond is four feet deep throughout its entirety. This small, shallow pond is easily accessible to anglers, so we stocked about 250 rock bass to provide opportunities for anglers.

Illinois Asian Carp Exercise

PAGE 3



Fisheries Division once again sent staff down to the Illinois River to aid the Illinois DNR in an effort to reduce the number of Asian Carp in the “leading edge” of these invasive species as they continue to be a threat to the Great Lakes. Through this effort we not only help out a partner agency but also gain valuable experience learning how to capture these tenacious fish. To see footage of this effort, go to:

<https://www.youtube.com/watch?v=6MslzDoXEQM&feature=youtu.be>

Grass Carp



In collaboration with Michigan State University, Ohio DNR, the Great Lakes Acoustic Telemetry Observation System, and Central Michigan University we continued working towards understanding movements of grass carp (a non-native species) in western Lake Erie. Through 2015 we have surgically implanted 12 grass carp with acoustic transmitters and finished a trial period of deploying acoustic receivers into 3 tributaries to Lake Erie. All 12 fish were captured by a commercial fishing operation in either Michigan or Ohio waters of Lake Erie.

We also collaborated with the University of Toledo and the US Geological Survey on another grass carp project that was targeting the early life stages of this species. The current understanding of grass carp life history suggests that these fish spawn in rivers during stream flow peaks and when water temperatures are approaching 70°F. Grass carp eggs are somewhat buoyant and develop as they flow downstream. Through the deployment of nets and larval fish traps, we sampled the River Raisin weekly from June to August in an attempt to collect grass carp eggs and larval stage fish. These efforts resulted in zero grass carp eggs or larval grass carp.

Lake Surveys

Devil's Lake, Lenawee County

Devil's Lake is a 1,330 acre natural lake located in northwestern Lenawee County, approximately 13 miles northwest of the City of Adrian. There is a DNR public boat ramp on the southwest corner of the lake. This lake is stocked with walleye to provide diverse fishing opportunities. This survey was conducted to evaluate walleye stocking and to generate a population estimate for walleye and northern pike. We captured 123 walleye ranging from 15-28 inches and 266 northern pike with a size range of 15 to 36 inches. All of the walleye were over the legal Minimum Size Limit (MSL) of 15 inches and 71% of northern pike exceeded the MSL of 24 inches. Other gamefish captured included largemouth bass, smallmouth bass, and black crappie.



Each walleye captured was fitted with a metal jaw tag during the survey. The jaw tags were used to further inform the population estimate by including capture information from anglers. The population estimate uses numbers of marked fish (i.e. jaw tags) that have been recaptured as part of the equation to estimate the population size. To estimate harvest numbers and add to our population estimate, an angler survey was conducted on the lake from April to September.

Trapnet full of walleye and northern pike

Tull Lake, Oakland County

Tull Lake is a 69-acre lake located in central Oakland County and is part of the Huron River watershed, though there is no public access. This survey was conducted as part of the statewide status and trends program looking at the long-term trends in fish communities throughout the state. We captured a total of 594 fish with 16 species present. Bluegill was the most abundant species with 319 fish caught, but they were small; only 21 exceeded 6 inches. Northern pike and largemouth bass were revealed as the top predators in the fish community. Northern pike ranged up to 38 inches long, but only 4% surpassed the MSL of 24 inches and largemouth bass ranged up to 17 inches with 32% exceeding the MSL of 14 inches.

Lake Surveys Continued

PAGE 5

Argo Pond, Washtenaw County

Argo Pond is a shallow 86.5 acre impoundment on the Huron River on the north side of the City of Ann Arbor in Washtenaw County. This waterbody was created in 1920 when Detroit Edison built Argo Dam to produce electric power for Ann Arbor. The dam was retired from production in 1963 and re-built in 1972 to provide some flood control and recreational opportunities on the impoundment.

This survey was completed as part of the statewide status and trends program. The crew captured a total of 596 fish with 22 species present. The most abundant panfish species was bluegill with 126 fish captured, followed by pumpkinseed (48 fish) and rockbass (44). The panfish were on the small side with bluegill averaging 4.4 inches, pumpkinseed averaging 5.7 inches and rockbass averaging 6.2 inches. Other gamefish caught were 18 northern pike averaging 24 inches in length and 11 large-mouth bass from 2- 16 inches in length.



ISLAND LAKE, OAKLAND COUNTY

Island Lake is a 140 acre lake located in the Island Lake State Recreation Area in Livingston County. Though there is no boat ramp, the recreation area provides good access to the shoreline and includes a large fishing pier. Island Lake has been stocked with walleye since 2002 in an effort to improve the size of bluegills through predation.

This survey was conducted to evaluate the walleye stocking and its effects on the panfish population. We captured 1,368 fish with 18 species present. Bluegill, with 509 fish caught was the most abundant species. Redear sunfish were the next most abundant with 450 individuals captured with a whopping 10% being greater than 8 inches. Other species of note were largemouth bass, of which 53% were legal-sized. We also captured two adult walleye, indicating survival of the stocked walleye.



Lake Surveys Continued

Round Lake, Lenawee County

Round lake is a 515-acre natural lake located in north-west Lenawee County. It is directly connected to Devil's Lake by a canal in the northwest corner of the lake.

There is no public boat launch on Round Lake. This survey was conducted to evaluate the fish community as part of the statewide status and trends survey program.

A large number of fish (2,353) revealed a high number of forage fish in the lake with almost 53% of the catch being mimic shiners, a small forage species. The lake had high species diversity, totaling 33 species. Bluegill and pumpkinseed were the most abundant sportfish, with 38% and 94% respectively being larger than 6 inches.

We captured a few white bass that reached the Master Angler size of greater than 16 inches. Round Lake is one of the few inland lakes in LEMU that have a population of white bass. Other species of note captured during the survey include largemouth bass, smallmouth bass, and northern pike.



Partnerships: Walleye Pond Reclamation

A lot of maintenance goes into operating a walleye pond. In the summer of 2015, the Waterford crew, along with members of the Lake St. Clair Walleye Club, reclaimed Selfridge north and south ponds from invasive Phragmites and years of woody growth that has occurred on the dykes and bottoms of the ponds. This invasive plant and growth not only makes it very difficult to harvest the fish out of the ponds, but can

cause severe damage to the integrity of the dikes and put holes in the bottom of the pond. Using an herbicide along with mechanical removal methods, we worked to improve and maintain the rearing ponds. Similar work was done at the Drayton Plains Nature Center and they will receive treatment next year as well. A typical reclamation process takes place over three years. This work will increase the efficiency of the ponds to produce fish and streamline the harvesting process.



Stream Surveys

PAGE 7

River Raisin, Monroe County

The City of Monroe obtained grant funding through the Great Lakes Restoration Initiative program to evaluate, design, and improve fish passage at several low head "beautification" dams scattered through the City of Monroe. These dams were built by the U.S. Civilian Conservation Corps in the 1930s. They were built to create aesthetically pleasing pools of water during periods of low flow in summer and early fall, and were also useful for dilution of sanitary and storm sewer runoff. However, the dams stopped fish movement upstream.

Before



After



The fish passage project has been completed and this survey was conducted to help characterize the fish communities present between the dams after the installation of fish passage measures. Two sites were sampled in the City of Monroe between the low-head dams. These same sites were surveyed prior to the creation of fish passage.

It is common to find high species diversity in the River Raisin and this survey was no exception with 30 species. Three fish that were not present previously (shorthead redhorse, round goby, and gizzard shad) were captured during the survey. This

indicates that there is indeed fish movement upstream from Lake Erie through the previous dam locations.

In addition, we also conducted a survey as part of the stream status and trends program. The site near Raisinville Road produced a total of 1,990 fish with 30 species present. We caught 169 smallmouth bass with 101 of them being young of the year and only 5 exceeding the MSL of 14 inches.



Stream Surveys Continued

Peltier Drain, Macomb County

Peltier Drain, located in Macomb County, is a tributary to the Clinton River Spillway. The US Army Corps of Engineers is looking into a habitat project on this drain and MDNR Fisheries Division had no prior data for this water. In an effort to collect information about the fish community in Peltier Drain, a crew electro-fished 300 feet upstream of Quinn Road. The fisheries survey resulted in a total of 178 fish with 14 species present. Yellow perch and bluntnose minnow were the most abundant species by number, followed by gizzard shad, goldfish, and largemouth bass.

Middle Rouge River, Wayne County

The Middle Branch of the Rouge River runs for 30 miles until it empties into the mainstem of the Rouge River. This survey was conducted as part of the statewide status and trends program. The crew electrofished 1,000 feet of stream below Levan Road in Wayne County and captured 604 total fish with 17 species present. There were many forage species making up 67% of the catch by number and a few large predators present including largemouth bass, smallmouth bass, and northern pike. One species of note is the round goby, an invasive species that may have been introduced via bait buckets.

NORTH BRANCH CLINTON RIVER, MACOMB COUNTY

The North Branch of the Clinton River originates in northwest Macomb County, flows northeast into Lapeer County, and then turns back in a general southerly direction until its confluence with the Clinton River main stem. The location of the survey was between 26 Mile Road and Card Road. We electrofished 1,800 feet and captured a total of 1,370 fish with 34 species present. There was a good number of forage species that made up 45% of the total catch. The number of large predators was low but we did capture 18 northern pike that ranged up to 25 inches. A species of note found during the survey is the brindled madtom, a species of special concern that is only found in southeastern Michigan.



brindled madtom

More Steam Surveys

PAGE 9

Black Creek, Lenawee County

Black Creek is a major tributary to the River Raisin. It begins in Lenawee County and flows northeast for 16.5 miles and discharges into the River Raisin about 3 miles west of Blissfield. A total of 1,200 feet of stream was electrofished and 374 fish were captured with 19 species present. The fish community was mainly made up of minnow species, but one species of note was the silverjaw minnow, that is only found in southern Michigan.



Lower Rouge River, Wayne County

The Lower Rouge River begins in Washtenaw County and flows almost due east to its confluence with the main-stem Rouge River in Dearborn. This survey was completed as a duplicate of a previous survey of this water in 1995. Five different sites (Denton Rd., Sheldon Rd., Newburgh Rd., Inkster Rd., and Ford Field) were electrofished through the Township of Canton and the cities of Livonia and Inkster. In total for the five sites, we captured 1,143 fish with 27 species present. White suckers and creek chubs were common at all five sites with few large predators like largemouth bass and smallmouth bass observed. One species of note, rainbow trout, was captured at the Sheldon Rd. site.

Typical catch from a stream



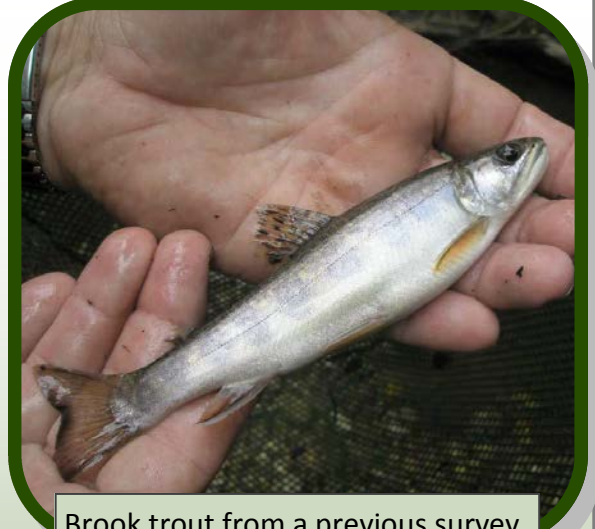
Common white sucker

Yet Another Stream Survey

Gallagher Creek, Oakland County

Gallagher Creek is a small, coldwater stream located in Oakland Township, in eastern Oakland County. The stream originates south of Silver Bell Road and west of Adams Road and flows in a northeast direction over a distance of 3.5 miles before entering into Paint Creek at Orion Road in the Village of Goodison. Gallagher Creek is home to one of only three remaining populations of self-sustaining brook trout in southeast Michigan.

Surveys have shown a reduced number of brook trout in the stream over time,



Brook trout from a previous survey

as well as fewer year classes, even though water temperatures remain favorably cold. This most recent survey resulted in zero brook trout being captured. Of the 163 fish being caught, 6 species were present and the catch was dominated by creek chubs, blacknose dace and mottled sculpin.

Detroit River muskellunge

Fisheries personnel from Waterford, Gaylord, Bay City, Harrietta, Plainwell and the Lake St. Clair Research Station spent three weeks on the Detroit River collecting Great Lakes muskellunge eggs. The fertilized eggs were sent to the Wolf Lake State Fish Hatchery for incubation and grow out. Fall fingerlings from this collection were used to develop inland broodstock lakes for future collection of eggs, as well as stocking other waters around the state. We captured 107 muskies and spawned 19 females that produced 782,460 eggs. A total of 27,449 fall fingerlings were harvested and distributed to 17 lakes and rivers throughout Michigan.



Youth Conservation Academy

In the summer of 2015, the Michigan Department of Natural Resources conducted a Youth Conservation Academy aimed at giving youth an experience to learn more about careers in the DNR and conservation of Michigan's natural resources. This academy was a weeklong series of lectures and demonstrations by different DNR divisions. Fisheries Divisions' part was to provide a power point demonstration about Fisheries Division followed by hands-on field demonstrations using backpack electrofishing, seining, fyke net and gill net demonstrations. The youth also got hands on experience handling live fish and seining the Belle Isle beach.



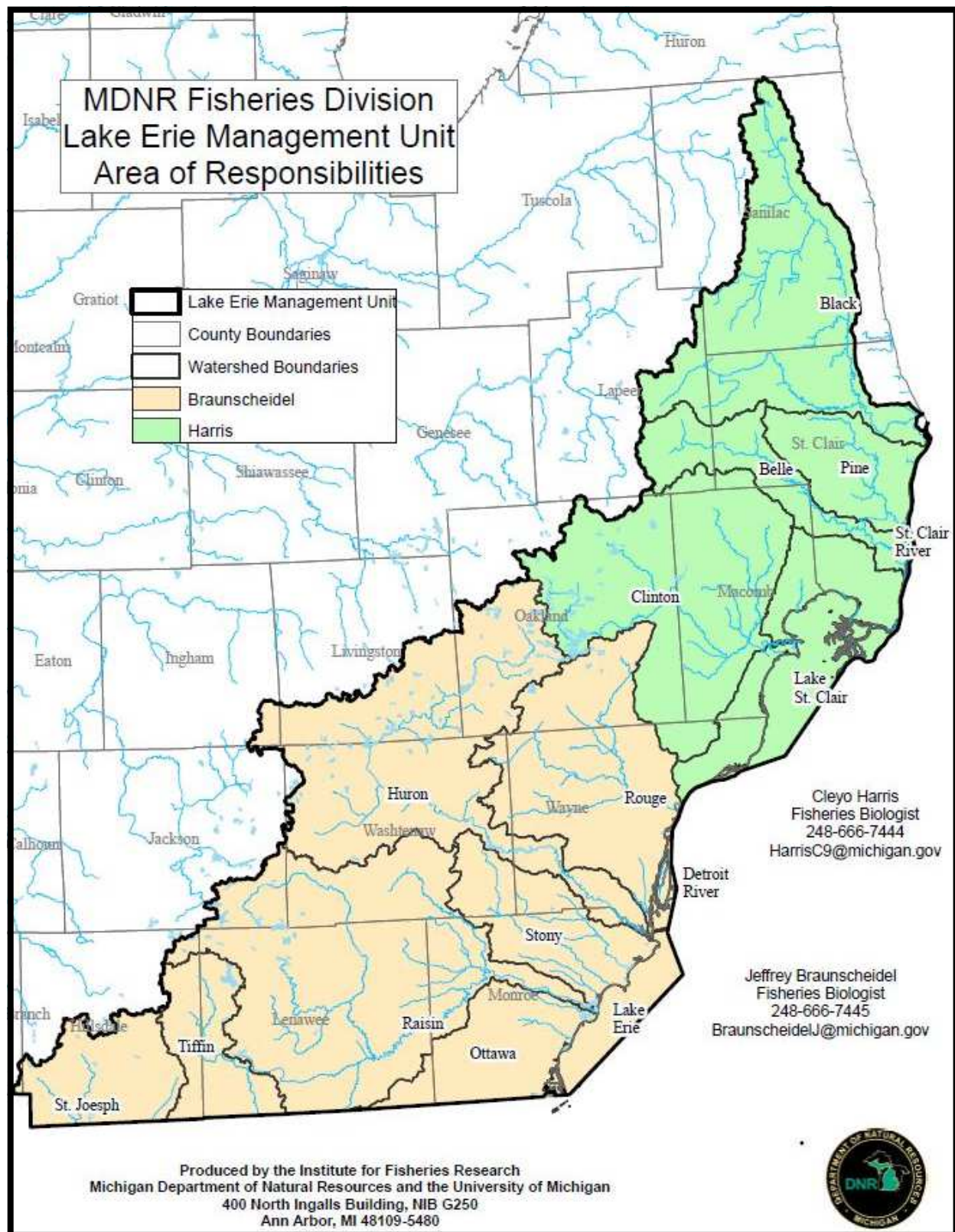
Statewide Angler Survey

In addition to the angler surveys being conducted on Lake Erie, angler surveys were completed on three other waters in LEMU during 2015. The Detroit River was monitored this year in conjunction with Ontario Ministry of Natural Resources and Forestry. Boat anglers on the Detroit River spent 625,000 hours fishing and harvested about 225,000 white bass, 135,000 walleye, and 70,000 yellow perch as the top species. To put this into perspective, anglers spent an estimated 325,000 hours fishing on Lake Erie (Michigan waters) while harvesting about 65,000 walleye and 375,000 yellow perch and boat anglers fishing Saginaw Bay fished about 365,000 hours, harvesting 100,000 walleye and 60,000 yellow perch.



An inland angler survey was also completed on Devil's Lake and Lake Hudson in Lenawee County. Fishing pressure is not nearly as high on our inland lakes but it is still very valuable to capture for the management of the fishery. Anglers fished Devil's Lake for an estimated 28,131 hours, harvested 41,766 bluegill and caught 19,846 largemouth bass. Lake Hudson anglers fished for an estimated 18,539 hours, harvested 3,819 bluegill and 2,172 black crappie, and caught 13,647 largemouth bass.

To obtain information on lake or stream surveys from this year or years prior or to ask any questions, please feel free to contact us. Use the map below to select the most appropriate biologist to contact;



Species	County	Water	Number	Avg. Size (Inch)
Steelhead	St. Clair	Belle River	7,500	7.56
	Macomb	Clinton River	27,008	7.95
	Wayne	Huron River	64,735	7.6
	St. Clair	Mill Creek	10,317	7.56
Rainbow Trout	Lenawee	Allens Lake	3,800	6.37
	Livingston	Appleton Lake	2,900	6.64
	Hillsdale	Bear Lake	9,600	6.65
	Hillsdale	Bird Lake	8,900	6.37
	Lenawee	Deep Lake	2,600	6.65
	Oakland	Huron River	330	18.03
	Oakland	Huron River	270	17.44
	Oakland	Huron River	703	15.59
	Oakland	Maceday Lake	12,400	6.64
	Livingston	Spring Mill Pond	300	18.03
	Livingston	Spring Mill Pond	300	14.84
Splake	Oakland	Maceday Lake	9,300	7.48
Brown Trout	St. Clair	Black River	17,990	6.47
	St. Clair	Black River	38,630	4.8
	Oakland	Huron River	680	20.83
	Oakland	Huron River	350	16.89
	Oakland	Huron River	435	15.67
	Oakland	Huron River	165	13.11
	Oakland	Paint Creek	6,160	5.29
	Livingston	Spring Mill Pond	200	15.67
	Hillsdale	St. Joe of Maumee	2,870	6.88
	Oakland	Clinton River	5,100	5.29
	Oakland	Clinton River	100	16.89
	Oakland	Clinton River	320	13.43
	St. Clair	St. Clair River	55,000	6.55
	Washtenaw	Mill Creek	2,400	5.12

Additional Fish Stocking for 2015

PAGE 14

Species	County	Water	Number	Avg. Size (Inch)
Walleye	Wayne	Belleville Lake	69,386	1.3
	Oakland	Cass Lake	102,250	1.45
	Lenawee	Devil's Lake	133,787	1.45
	Oakland	Lake Orion	49,125	1.45
	Oakland	Long Lake	7,838	1.45
	Washtenaw	Portage Lake	68,225	1.3
	Livingston	Strawberry Lake	29,012	1.45
	Oakland	Union Lake	31,055	1.47
	Oakland	Union Lake	37,024	1.25
	Livingston	Whitmore Lake	1,219	4.4
	Livingston	Whitmore Lake	180	9.5
Channel Catfish	Washtenaw	Geddes Pond	2,601	5.63
	Lenawee	Globe/Standish Ponds	3,001	5.63
	Wayne	Lake Muskoday	350	5.63
	Wayne	Lake Muskoday	22	—
Muskellunge	Hillsdale	Lake Dianne (GLMU)	425	8.66
	Lenawee	Lake Hudson (NMU)	502	11.5